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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/387,810	09/01/1999	SETH R. GOLDSTEIN	15280-312100	3041

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EXAMINER

HANDY, DWAYNE K

ART UNIT	PAPER NUMBER
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1743

13

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/387,810

Applicant(s)

Goldstein et al.

Examiner  
Dwayne K. Handy

Art Unit  
1743



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Sep 17, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 35-41 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Art Unit: 1743

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 35 and 37-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Liotta et al. (5,843,657). Liotta teaches an a method and apparatus for microdissection of tissue samples which utilizes a probe with a selectively activatable transfer surface for adhering to cells of interest. The probe is best shown in Figures 2A-2C and 8A-8D and described in columns 12 and 13. In column 12, Liotta teaches a transfer surface (30) on the end of the end of a probe comprised of a backing layer (31) and an activatable adhesive layer (32). The activatable adhesive layer (32) is characterized by its ability to be stimulated by electromagnetic radiation so as to become locally adherent to the tissue. The reference then describes how the tissue is collected using the probe as shown in Figures 8A-8D. The transfer surface is positioned over a cellular material sample and

Art Unit: 1743

brought into contact with the sample. The cellular sample to be removed is examined visually and then the probe surface corresponding to that area is activated by a beam of energy. The probe is lifted from the support – with cellular sample material attached – and then moved away from the remaining material in the sample. As shown in the Figures, the probe is a rod with a convex surface that also contains a selectively activated coating placed on the end.

### ***Inventorship***

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1743

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liotta et al. (5,843,657) in view of Adams et al. (6,060,288). Liotta et al., as described above in paragraph 3 above, teaches every element of claim 36 except for the convex surface of the rod shaped as a sphere. Liotta et al. ('657) does not specifically cite a probe with a spherical shaped end. Adams (6,060,288) teaches the use of optical fibers - among several possibilities - as probes for the study of nucleic acids in conjunction with biological samples. The nucleic acids are attached to the end of the optical fiber probe.

Art Unit: 1743

The use of optical fibers as the probe is described in columns 13 and 14. In column 13, lines 58-65, the surface to which the primer pairs are bound is described as “flat, or cylindrical, or spherical for ease of optical detection, or can conform to any other shape as may be chosen”. Later, Adams states that the fiber may be altered to provide optical focusing (col. 16, line 23). It would have been obvious to one of ordinary skill in the arts to combine the optical fiber teachings of Adams with the teachings of Liotta. One would add the optical fiber teaching of Adams in order to provide a spherical surface for the probe binding surface as well as to provide an optical surface for viewing the cellular matter in the sample. Liotta teaches that the sample is viewed through the probe of their device. Adams teaches that the fiber may be altered for optical focusing. This would allow for the use of a flexible (fiber optic) probe that can be altered to provide whatever optical view is required depending upon the cellular system. That is, the user could use the probe in systems which require a flexible probe. The optical focusing feature would also provide enhanced focusing of the energy beam used to activate the adhesive surface.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 35-41 have been considered but are moot in view of the new ground(s) of rejection. In traversing the arguments made by the Examiner in the previous Office Action, applicant has argued that the reference Liotta et

Art Unit: 1743

al. (5,843,644) does not teach a selectively activated coating that provides only selected adhesive regions on the capture element while other non-selected regions of the coating remain non-adhering. The Examiner agrees with applicant that the Liotta ('644) reference does not disclose a selectively activated adhesive surface. The Examiner feels he has addressed this issue by replacing the original rejection with a new rejection based on the reference Liotta et al. (5,843,657). Liotta ('657) teaches a selectively activated coating on a capture probe that is used in tissue capture.

Applicant has also argued that the reference Adams is improperly used in combination with Liotta et al. ('644) since Adams is not directed to laser dissection. The Examiner disagrees. In combining the teachings of Adams with the teachings of Liotta ('644), the Examiner is relying on the common teaching cited in both references of attaching or adhering tissue to the end of a glass probe. In Liotta, the probe is made of glass; Adams uses an optical fiber made of glass. In both Liotta ('644) and Adams, the probe used is prepared to provide for the attachment of biological compounds to the probe.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP §

Art Unit: 1743

706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K. Handy whose telephone number is (703)-305-0211. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden, can be reached on (703)-308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703)-772-9310.




Application/Control Number: 09/387,810

Page 8

Art Unit: 1743

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0661.

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700

dkh

December 2, 2002